

WHAT IS CLAIMED IS:

1. A data processing system, comprising:
 - a first data processing unit operable to perform data processing under program control;
 - a plurality of second data processing units, each of said second data processing units being operable to perform data processing under wired logic control;
 - a storage unit operable to store data;
 - a first data transfer unit operable to connect said first data processing unit and said plurality of second data processing units, via said storage unit; and
 - a second data transfer unit operable to connect said plurality of second data processing units.
2. The data processing system according to Claim 1,
wherein said second data transfer unit is operable to perform a bilateral data transfer between one of said plurality of second data processing units and another of said plurality of second data processing units.
3. The data processing system according to Claim 1,
wherein said second data transfer unit is operable to perform a unilateral data transfer between one of said plurality of second data processing units and another of said plurality of second data processing units.
4. The data processing system according to Claim 1,
wherein said second data transfer unit is operable to connect one of said plurality of second data processing units and another of said plurality of second data processing units in one-to-one correspondence.
5. The data processing system according to Claim 1,
wherein said second data transfer unit is operable to connect one of said plurality of second data processing units and some of the other of said plurality of second data processing units in one-to-many correspondence.

6. The data processing system according to Claim 1, wherein said second data transfer unit is operable to connect said plurality of second data processing units.

7. The data processing system according to Claim 1, wherein said second data transfer unit is operable to connect said plurality of second data processing units and to perform a unilateral data transfer from a prescribed unit of said plurality of second data processing units to a plurality of other units of said plurality of second data processing units.

8. The data processing system according to Claim 1, further comprising a third data transfer unit operable to connect said first data processing unit and said second data processing unit.

9. The data processing system according to Claim 4, wherein each of said plurality of second data processing units comprises a calculating unit, and

a fourth data transfer unit operable to connect said calculating unit and said second data transfer unit.

10. The data processing system according to Claim 1, wherein said first data processing unit is operable to control data transfer via said second data transfer unit.

11. The data processing system according to Claim 8, wherein said first data processing unit is operable to control data transfer via said third data transfer unit.

12. The data processing system according to Claim 1, further comprising a first data transfer control unit operable to control data transfer via said second data transfer unit.

13. The data processing system according to Claim 8, further comprising

a second data transfer control unit operable to control data transfer via said third data transfer unit.

14. The data processing system according to Claim 1,
wherein said second data processing unit is operable to perform processing of encoding.

15. The data processing system according to Claim 1,
wherein said second data processing unit is operable to perform processing of decoding.